

## **REMARKS**

At the time the current Official Action was mailed, the Examiner rejected claims 1-7 and 9-17. Reconsideration of the application in view of the present amendments and remarks set forth below is respectfully requested.

### **Claim Rejections under 35 U.S.C. § 112**

In the Office Action, the Examiner rejected claims 1-7 and 9-17 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The Applicants respectfully traverse this rejection.

### ***Legal Precedent and Guidelines***

Regarding the written description requirement, the initial burden of proof regarding the sufficiency of the written description falls on the Examiner. Accordingly, the Examiner must present evidence or reasons why persons skilled in the art would not recognize a description of the claimed subject matter in the applicant's disclosure. *In re Wertheim*, 541 F.2d 257, 262, 191 U.S.P.Q. 90, 96 (C.C.P.A. 1976). The Examiner is also reminded that the written description requirement does not require the claims to recite the same terminology used in the disclosure. The patentee may be his own lexicographer. *Ellipse Corp. v. Ford Motor Co.*, 171 U.S.P.Q. 513, 517 (7th Cir. 1971), *aff'd*, 613 F.2d 775 (7th Cir. 1979), *cert. denied*, 446 U.S. 939 (1980). Moreover, any information contained in any part of the application as filed, including the specification, claims, and drawings, may be added to other portions of the application without introducing new matter. M.P.E.P. § 2163.06.

### ***Support in the Specification for the Claimed Features***

In the Office Action, the Examiner stated:

Claims 1 - 7 and 9 - 17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed discloses that the memory stores coefficients (used in formulas) and breakpoints (used to indicate when to use a particular formula) [see originally filed Figures 2 and 3 and the descriptions thereof]. Further, the originally filed specification teaches that different formulas may be used for different sections of the saturation curve. However, these formulas are resident in the sensor reader/monitor. There is no teaching or suggestion that the sensor memory include the formulas or algorithms, only that the coefficients and breakpoints are stored therein. As such, the claims contain subject matter that was not adequately described by the specification as originally filed, and therefore Applicant did not have possession of the claimed invention at the time the application was filed.

Office Action, para. 3.

The Applicants respectfully submit that one of ordinary skill in the art with the benefit of the present disclosure would recognize the invention set forth in the claims. Specifically, one of ordinary skill in the art would recognize that the specification clearly teaches that the formulas may be stored in the sensor memory. In fact, the specification need not specifically state that the formulas may be stored on the sensor memory, since the claims are not required to recite the same terminology used in the disclosure. *See Ellipse Corp. v. Ford Motor Co.*, 171 U.S.P.Q. 513, 517 (7th Cir. 1971), *aff'd*, 613 F.2d 775 (7th Cir. 1979), *cert. denied*, 446 U.S. 939 (1980).

As the Examiner has recognized, the formulas may be stored on the monitor. Office Action, para. 3. However, the formulas also may be stored on the sensor memory, as recited by independent claims 1, 6, 11, and 13. Indeed, the specification discloses compressing functions to allow storage of those functions on a limited sensor memory. Application, page 9, lines 15-17. The specification states that “any function can be used for the formulas for determining oxygen saturation . . . . For a limited *sensor memory*, the *function* representation may be compressed.” Application, page 9, lines 15-17 (emphasis added). One skilled in the art would recognize that the very reason for compressing the functions (formulas) is to allow the formulas to be stored on a memory with limited capacity. If the formulas only were stored on the monitor memory, there would be no need to compress them for a limited *sensor* memory.

In view of this teaching, the Applicants respectfully assert that the specification clearly teaches storing formulas in the sensor memory. Furthermore, if the Examiner disagrees with this assertion, the Applicants respectfully remind the Examiner of his burden to set forth evidence or reasoning why one of ordinary skill in the art would *not* recognize the claimed invention in the disclosure *despite the teaching in the application noted above*. See *In re Wertheim*, 541 F.2d 257, 191 U.S.P.Q. 90, 97 (C.C.P.A. 1976).

In view of the remarks set forth above, the Applicants respectfully submit that a person of ordinary skill in the art would recognize a description of the subject matter of claims 1, 6, 11, and 13 in the disclosure. Further, the Applicants submit that dependent claims 2-5, 7, 9-10, 12, and 14-17 are allowable based on their dependency from these independent claims, and for the unique matter recited in each dependent claim. For at least these reasons among others, the

Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 112, first paragraph.

### **Response to Examiner's Remarks**

In a previous office action dated January 10, 2006, the Examiner asserted that Sakai et al. (U.S. Patent No. 4,942,877) (hereinafter "the Sakai reference") anticipated claims storing a breakpoint on the sensor memory because "at least one of the other values stored in the memory of Sakai et al. is capable of being used by a monitor as a value indicating a breakpoint." Office Action, mailed January 10, 2006, para. 7. Although there is no existing rejection because the claims were amended, the present claims recite storing a breakpoint on the sensor memory. Therefore, because the Examiner's assertions have not been previously addressed, the Applicants present the following remarks to facilitate examination of the present application.

### ***Remarks***

The present claims recite storing a breakpoint in the sensor memory in addition to storing sets of coefficients. For example, claim 6 recites, *inter alia*, "[a]n oximeter sensor system comprising . . . a memory, . . . the *memory storing an indication of a breakpoint*, first and second sets of coefficients . . . and first and second formulas . . . ." However, the Sakai reference does not teach or suggest a memory that stores *both* sets of coefficients *and* a breakpoint, as recited by the Applicants' claims. In contrast, the Sakai reference discloses storing *either* a table of coefficients *or* other values (the eleven data items) in a sensor memory. The Sakai reference requires that "the table of coefficients  $K_1$  to  $K_4$  used in the equation (5) for the calculation of the

oxygen saturation degree . . . may be stored in the memory circuit 56 *instead* of storing the above mentioned eleven data items.” Sakai, col. 12, lines 9-14.

First, the Applicants assert that the values stored in the sensor memory of Sakai do not correspond to a breakpoint between formulas used to determine oxygen saturation, as recited by the Applicants’ existing claims. *See, e.g.*, Applicants’ claims 1 and 3. In contrast, the Sakai reference discloses that the memory circuit stores “eleven items with respect to the *properties of the light or ray* of the RLED 20 and the IRLLED 21.” Sakai, col. 3, lines 57-58 (emphasis added). These eleven items are used to select the LED driving current, select the coefficients, and account for cross talk. *See* Sakai, Fig 6; col. 9, lines 25-29; col. 9, lines 47-65; col. 11, lines 23-30. Although these items may be used to select LED based inputs, such as coefficients, used in the formula for determining oxygen saturation (*See* Sakai, Equation 5), using data items to select inputs for a formula differs from using the data items to select *between* formulas. Nothing in the Sakai reference teaches or suggests using these items to select *between formulas* for determining oxygen saturation. In view of this deficiency, the Sakai reference cannot anticipate claims which recite storing a breakpoint between formulas for determining oxygen saturation on the sensor memory.

Second, although, as discussed above, the Applicants do not agree with the Examiner’s assertion that the eleven data items may be used by the monitor to indicate a breakpoint, the Applicants assert that even if the data items could be used to indicate a breakpoint, the Sakai reference would not show every element of the claimed invention. The Sakai reference discloses storing coefficients on the sensor memory *instead* of the eleven data items. Therefore, when the

coefficients in Sakai are stored on the sensor memory, the eleven data items are not present. Because only one of the coefficient sets and the data items are stored on the sensor memory, Sakai does not teach or suggest a memory that stores both sets of coefficients and a breakpoint, as recited by the Applicants' claims. In view of this deficiency, the Sakai reference cannot anticipate claims which recite storing *both* sets of coefficients *and* a breakpoint on the sensor memory.

### **New Claims**

As set forth above, the Applicants added new claims 18-53. For the reasons discussed in detail above and in view of other claim features, the Applicants believe these claims are patentable over the cited references and in condition for allowance. For example, the Applicants assert that none of the cited references, whether considered separately or in hypothetical combination, disclose an oximeter system or method of manufacturing an oximeter monitor comprising, *inter alia*, a calculation mechanism or circuit configured to "determine a blood oxygen saturation in the patient," wherein the calculation mechanism or circuit is configured to select and/or utilize "the first set of coefficients in the first formula for a first range of oxygen saturation values and [select and/or utilize] the second set of coefficients in the second formula, for a second range of oxygen saturation values," as recited in claims 27 and 36. Additionally, the Applicants assert that none of the cited references, whether considered separately or in hypothetical combination, disclose an oximeter system comprising, *inter alia*, a calculation mechanism that "uses the algorithm to define a first curve . . . and . . . a second curve . . . wherein the first curve corresponds to a first range of oxygen saturation values and the second curve corresponds to a second range of oxygen saturation values[.]" as recited in claim 35.

In another example, the Applicants assert that none of the cited references, whether considered separately or in hypothetical combination, disclose a method of manufacturing an oximeter monitor comprising, *inter alia* “providing a read circuit configured to read [or request] a first set of coefficients for use in at least one [or the first] formula, a second set of coefficients for use in the same [or second] formula, and a breakpoint signal [or value indicating a signal breakpoint]” as recited in claims 43 and 44. Further, the Applicants assert that none of the cited references, whether considered separately or in hypothetical combination, disclose an oximeter system comprising “a sensor memory storing a first formula for determining oxygen saturation [and] a second formula for determining oxygen saturation[,]” as recited by claim 46. Therefore, the Applicants request that the Examiner allow the new claims 18-53.

### **Conclusion**

In view of the remarks set forth above, the Applicants respectfully request reconsideration of the Examiner’s rejections and allowance of all pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

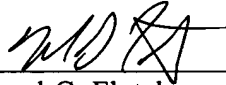
### **General Authorizations**

In accordance with 37 C.F.R. § 1.136, the Applicants hereby provide a general authorization to treat this and any future reply requiring an extension of time as incorporating a request therefore. Applicant authorizes the Commissioner to charge the appropriate fees of

\$2,800.00 for the additional claims fees (6 additional independent claims at \$1200.00 and 32 additional total claims at \$1600.00), and any additional fees which may be required, to the credit card listed on the attached PTO-2038. However, if the PTO-2038 is missing, if the amount listed thereon is insufficient, or if the amount is unable to be charged to the credit card for any other reason the Applicants authorizes the Commissioner to charge the appropriate fee to Deposit Account No. 06-1315; Order No. TYHC:0075-2 /FLE/POW (PS0236S-2). Furthermore, the Applicants authorizes the Commissioner to charge the appropriate fee for any extension of time to the same deposit account and reference number.

Respectfully submitted,

Date: September 26, 2006

  
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